

1 WHAT IS CLAIMED IS:

5 1. A lightweight fence and gate for swimming pools surrounded by a deck comprising a plurality of poles adapted to be inserted into the pool decking adjacent to the pool, the poles including an insert that is contained within each pole and a pin that is adhesively attached to each insert, the pin protruding from the bottom of each pole;

10 a mesh screen tensioned between the poles having top and bottom bindings;

15 a gate in the fence including a frame having a pair of spaced upright support members, a first horizontal brace for spacing the upright support members and a length of mesh screen tensioned between the upright support members;

20 support means capable of withstanding lateral tension forces of the screen for supporting and latching the gate;

25 hinges secured to the support means on one side of the gate; and

30 a latch device secured to the gate and to the support means on the opposite side of the gate.

35 2. A lightweight fence and gate as claimed in claim 1 wherein the insert is made of plastic.

40 3. A lightweight fence and gate as claimed in claim 1 wherein the pin is made of metal.

45 4. A lightweight fence and gate as claimed in claim 1 wherein the support means includes on each side of the gate a pair of poles inserted into the pool deck with cross members attached to both of the pair of poles.

50 5. A lightweight fence and gate as claimed in claim 4 wherein the gate includes a generally U-shaped frame opening upwardly with the first horizontal brace secured to the lower ends of the upright support members and a second horizontal brace secured to the upright support members on the pool side of the mesh screen at a height well below the top of the gate fabric.

55 6. The fence according to claim 1 wherein the insert is polyvinylchloride.

1 7. The fence according to claim 1 wherein the pin is stainless steel.

5 8. The fence according to claim 1 wherein the support means includes on each side of the gate a pair of poles having a plastic insert contained within each pole and a metal pin that is attached to each insert, the pin protruding from the bottom of each pole, wherein the pins are inserted into the pool deck and wherein cross members are attached to both poles.

10 9. The fence according to claim 8 wherein the pin is attached to the plastic insert by an adhesive.

15 10. A lightweight fence and gate for swimming pools surrounded by a deck comprising a plurality of poles adapted to be inserted into the deck adjacent the pool, the poles including an insert that is contained within each pole and a pin that is attached to each insert, the pin protruding from the bottom of each pole;

20 a first length of mesh screen tensioned between the poles defining the pool fence;
25 a gate in the fence including a frame having a pair of spaced upright support members and a second length of mesh screen tensioned between the upright support members of the gate;
30 and
35 support means to which the first length of mesh screen is attached for supporting the fence and gate and latching the gate including a truss structure capable of isolating the lateral tension forces of the first length of mesh screen on opposite sides of the gate.

25 11. A lightweight fence and gate as claimed in claim 10 wherein the inserts of the poles are made of plastic.

30 12. A lightweight fence and gate as claimed in claim 10 wherein the pins are made of metal.

35 13. The fence according to claim 10 wherein the pins are attached to the inserts by an adhesive.

35 14. The method for installing a self closing gate in a tensioned removable swimming pool fence comprising a plurality of poles interconnected by flexible mesh fencing comprising:

1 inserting a series of the plurality of poles into a deck surrounding a swimming pool with
the flexible mesh fencing in tension to maintain the fence in tension;

5 the first and last poles of the series of poles defining a gate opening, the poles including
an insert that is contained within each pole and a pin that is attached to each insert, the pin
protruding from the bottom of each pole;

10 the first and last poles each constituting a pair of poles interconnected to each other to
define a support structure capable of absorbing the tension of the flexible mesh fencing;

15 fabricating a gate including a pair of side rails, a cross rail and flexible mesh tensioned
between the side rails;

20 hinging the first of the pair of side rails of the gate to the first of the pair of poles; and
installing a latch between the second of the pair of side rails of the gate and the last pole of the
tensioned fence;

25 whereby the gate is free to open and close without interference by the tension of the mesh
of the fencing.

15. The method in accordance with claim 14 wherein the insert is made of plastic.

20. The method in accordance with claim 14 wherein the pin is made of metal.

25. 17. The method in accordance with claim 14 wherein the pin is attached to the insert
with an adhesive.

30. 18. A fence pole comprising:

25. a lower end;

30. an insert that is received within the lower end of the fence pole; and

35. a pin that is adhesively attached to the insert, the pin having a diameter smaller
than that on the pole and a portion that protrudes from the lower end of the fence pole.

30. 19. The fence pole according to claim 18 wherein the insert is made of plastic.

35. 20. The fence pole according to claim 18 wherein the pin is made of metal.

35. 21. A method of manufacturing a fence pole comprising:

35. coating a portion of a pin with an adhesive;

1 introducing the pin into an insert, the pin protruding from the bottom of the insert; and
placing the insert within the pole so that the pin protrudes from the bottom of the pole.

22. The method in accordance with claim 21 wherein the insert is made of plastic.

5 23. The method in accordance with claim 21 wherein the pin is made of metal.

10

15

20

25

30

35